Title (en)

Plate heat exchanger with condensed fluid separating function and its manufacturing method

Title (de)

Plattenwärmetauscher mit Kondensatabführung und Verfahren zur seiner Herstellung

Title (fr)

Echangeur de chaleur à plaques avec dispositif d'évacuation de condensat et son procédé de fabrication

Publication

EP 1616610 A1 20060118 (EN)

Application

EP 04025057 A 20041021

Priority

KR 20040054274 A 20040713

Abstract (en)

Disclosed is a plate heat exchanger (100) with a condensed fluid separating function, which includes a reheater (4) having plural laminated wrinkled plates (1a) and introduction (2) and discharge (3) holes connected to different compressed air channels therein; a chiller (7) having plural laminated wrinkled plates (1b), working fluid inlet (5) and outlet (6) holes connected to a working fluid channel therein, and compressed air channels formed therein; and a wall-shaped pipe (10) configured for partitioning the reheater (4) and the chiller (7) with providing a flow line to communicate a compressed air with the reheater and the chiller. An adiabatic expansion chamber (8) is formed in a lower portion of the chiller (7) on a flow line for the compressed air cooled in the chiller to move toward the reheater (4). A condensation chamber (18) is formed in a lower portion of the reheater (4) connected to the adiabatic expansion chamber (8). A condensation mesh sieve (9) and a drainage hole (17) are formed in the condensation hole (18).

IPC 8 full level

B01D 5/00 (2006.01); **B01D 53/26** (2006.01); **F28B 9/08** (2006.01); **F28D 9/00** (2006.01)

CPC (source: EP US)

B01D 5/0015 (2013.01 - EP US); **B01D 5/0072** (2013.01 - EP US); **B01D 5/009** (2013.01 - EP US); **F28B 9/08** (2013.01 - EP US); **F28D 9/005** (2013.01 - EP US); **F28D 9/0093** (2013.01 - EP US); **F28F 3/04** (2013.01 - EP US)

Citation (applicant)

- US 6536511 B1 20030325 - NILSSON MAGNUS [SE], et al
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Citation (search report)

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- [PX] DE 10311602 A1 20040923 - AGT THERMOTECHNIK GMBH [DE], et al
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- [A] WO 9414021 A1 19940623 - MULTISTACK INT LTD [AU], et al
- [A] US 5845505 A 19981208 - GALUS TIMOTHY J [US], et al
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DOCDB simple family (publication)

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DOCDB simple family (application)

EP 04025057 A 20041021; CN 200410090454 A 20041118; DK 04025057 T 20041021; JP 2005112893 A 20050408; US 98466804 A 20041109